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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,995

02/20/2004

Robert S. Whitehouse

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26161 7590 07/14/2009  
FISH & RICHARDSON PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER

NERANGIS, VICKEY MARIE

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

07/14/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/783,995	<b>Applicant(s)</b> WHITEHOUSE, ROBERT S.	
	<b>Examiner</b> VICKEY NERANGIS	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 114-141 is/are pending in the application.
- 4a) Of the above claim(s) 123-127 and 137-141 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 114-122 and 128-136 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/4/2009 has been entered.
2. All outstanding rejections have been withdrawn in light of applicant's amendment filed on 5/4/2009.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

### ***Election/Restrictions***

4. Newly submitted claims 123-127 and 137-141 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The invention of claims 114-122 and 129-136 and of claims 123-127 and 137-141 are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the blend can be prepared by solid-state blending.

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Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 123-127 and 137-141 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Objections***

5. Claim 130 is objected to for not specifying the basis for the amount of comonomer. The specification discloses that the amounts are based on weight (and not mol %). Such should be recited in the claims.

Claims 131 and 132 are objected to for not specifying the basis for the amount of poly 3-hydroxybutyrate. The specification discloses that the amounts are based on weight. Such should be recited in the claims.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. Claims 114-117, 121, and 122 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gross et al (WO 97/07153).

Gross et al exemplifies a blend comprising copolymer of 72% 3-hydroxybutyrate and 28% 4-hydroxybutyrate and a copolymer of 10% 3-hydroxybutyrate and 90% 4-hydroxybutyrate (page 25, lines 26-28), wherein the difference in glass temperature is 27°C (page 24, Table III, 4-AS).

In light of the above, it is clear that Gross et al anticipates the presently cited claims.

***Claim Rejections - 35 USC § 102/103***

7. Claims 119 and 120 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gross et al (WO 97/07153).

The discussion with respect to Gross et al in paragraph 6 above is incorporated here by reference.

While Gross et al does not disclose the properties of its blend composition such as deformation angle tolerance upon being molded, this property is considered to be inherent given that Gross et al teaches that beneficial mechanical properties are obtained (col. 1, line 16) and further given that Gross et al discloses the presently claimed ingredients in the blend composition. Case law holds that a material and its properties are inseparable. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

In light of the above, it is clear that Gross et al anticipates the presently cited claims.

Alternatively, the presently claimed properties would have obviously been present given that Gross et al discloses the polymer and blends as presently claimed.

***Claim Rejections - 35 USC § 103***

8. Claim 118 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al (WO 97/07153).

The discussion with respect to Gross et al in paragraph 6 above is incorporated here by reference.

Gross et al discloses that the copolyester blend can contain "at least two component polymers" (page 5, lines 12-19), which suggests the addition of a third PHA.

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Given that Gross et al suggests the addition of a third PHA, it would have been obvious to one of ordinary skill in the art to have a third PHA present in the blend taught by Gross et al.

9. Claims 128-136 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al (US 6,808,795).

Noda et al discloses a blend of polyhydroxyalkanoates (PHA) comprising a PHA copolymer (i.e., claimed second PHA) prepared from a comonomer represented by formula (I) that is 3-hydroxybutyrate (col. 4, lines 3-19) and a comonomer represented by formula (III) which reads on 4-hydroxybutyrate when m is 3 (col. 4, lines 32-38) and a another PHA (i.e., claimed first PHA) that acts as a nucleating agent (col. 6, lines 1-5) that is preferably polyhydroxybutyrate homopolymer prepared from 3-hydroxybutyrate (col. 5, lines 28-30). In copolymer, the ratio of 3-hydroxybutyrate to 4-hydroxybutyrate is 50:50-98:2 (col. 4, lines 56-61). The polyhydroxybutyrate homopolymer is present in an amount of 0.01-10 wt % based on total amount of the blend (col. 6, lines 13-16).

Noda et al fails to disclose with sufficient specificity so as to anticipate a blend of poly 3-hydroxybutyrate homopolymer and a copolymer of 3-hydroxybutyrate and 4-hydroxybutyrate.

Even so, given Noda et al's clear preference for 3-hydroxybutyrate as comonomer in the PHA copolymer and for poly 3-hydroxybutyrate homopolymer as the additional PHA, it would have been obvious to one of ordinary skill in the art to utilize a copolymer also having as comonomer 4-hydroxybutyrate blended with poly 3-hydroxybutyrate homopolymer as blend which would intrinsically have the presently claimed deformation angle tolerance upon being molded.

***Response to Arguments***

10. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Nerangis whose telephone number is (571) 272-2701.

The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/9/2009  
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/Vickey Nerangis/

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